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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,035	07/03/2002	Gilbert Wolrich	10559-306US1	9914

20985 7590 07/10/2006

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EXAMINER	
PAN, DANIEL H	

ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/070,035	WOLRICH ET AL.	
	Examiner	Art Unit	
	Daniel Pan	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-20 remain for examination. Due to newly amended claims 21,22, a new reference Baldwin et al. (5,056,015) has been introduced to show the teaching of specifying the FIFO queue resource by instruction. Response to the remaining claims is also included in this action.

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1,19 are rejected under 35 U.S.C. 101 because The reasons were given in the last Office action, and not to be repeated herein.

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 19 , 21,22 are rejected under 35 U.S.C. 102(b) a being anticipated by Cage (4,454,595).

4. As to the newly amended claim 1, 19, the examiner holds that a state specified in a branch instruction must have been implemented in a branch operation, such as the IF THEN clause. If the condition or the state is met then jump to a target. Cage did not explicitly show the IF THEN clause. However, examiner holds that it must implement the IF THEN , or the like, to achieve the branch operation in the program flow for decision making purpose as set forth in fig.5).

5. As to claims 21,22, Cage also included FIFO queue , see buffer available determination in fig.5 and the FIFO in col.3, lines 1-7).

6. Claims 1,10,19, are rejected under 35 U.S.C. 102(b) as being anticipated by Aggarwal et al. (6,275,508).

7. As to the newly amended claim 1, 10,19, Aggarwal's long word instruction (see WCS in fig.12, col.3, lines 61-63) is a branch instruction which has a state name [address field] to be evaluated to determine the availability of a resource (memory space) specified in the branch instruction [WCS] (see the condition of micro engine in col.4, lines 64-67, col.5, lines 1-9, see branch address in col.10, lines 12-31).

8. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa (5,724,563).

9. As to the newly amended features of state specified in branch instruction in claim 1, see the response to e) below.

10. Claim 1 is rejected under 35 U.S.C. 102 (b) as being anticipated by Dyer et al. (5,640,538).

11. As to the newly amended features of state specified in branch instruction in claim 1, see the state specified in the branch instruction in fig.8 (the state being the Synch Found Branch bit set, and Counter Function field specified in the branch instruction ,

alternatively, see also the condition specified in the branch type field in the branch instruction in Table 1) .

12. The following is a new ground of rejection in response to the newly amended claims 21,22.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 21,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa (5,724,563) in view of Baldwin et al. (5,056,015) .

14. As to claims 21,22, limitations of parent claim 1 have been discussed previously, therefore, it will not be repeated herein. Hasegawa did not specifically show the state specified in branch instruction that indicate the availability of resource , such as the FIFO queue as claimed. However, Baldwin taught a system including a microinstruction including the a state (see branch field) specified in the instruction for indicating the availability of a FIFO queue (col.38, lines 51-66). It would have been obvious t one of ordinary skill in the art to use Baldwin in Hasegawa for including the state specified in the branch instruction for indicating the availability of resource FIFO as clamed because the use of Baldwin could provide Hasegawa the ability to expand the interface connection of Hasegawa to adapt to specific condition of a resource , such as a queue, or the like, and because Hasegawa also taught a queue (see register

61 in fig.9) for strong his resource indication, and because Baldwin also taught the availability of the FIFO was indicated on the branch, which was a suggestion of the need for providing an indication of the storage resource in the branch instruction in order to enhance the resource allocation of the system, in doing , provided a motivation.

15. The following is the response to the remaining clams 1-20.

16. The rejections are maintained and incorporate by reference the last Office action on 02/08/06 .

17. The response filed on 04/27/06 by applicant has been fully considered but is not persuasive.

18. In the remarks, applicant argued that :

a) page 20 of internal guidelines is not made public;

b) functional descriptive material recorded in computer readable medium and structurally and functionally interrelate to the medium is statutory;

c) Cage's branch refers to jumping to a different points in a flowchart (fig.5), not a branch instruction;

d) Aggarwal did not teach a state name which is to be evaluated to determine the availability of a resource specified in the branch instruction;

e) Hasegawa's branching decisions are based on the value of Z,N,C and V flags of the condition code unit 61, and not on the state of a state name specified by the branching instruction, where the state is indicative of the availability of a resource;

f) Dyer's HRBIT is not a resource of the data processing apparatus (e.g. resource such as a queue);

g) claim 9 recites a specified context.

19. As to a) , page 20 of the 101 Interim Guidelines was already published at www.uspto.gov.

20. As to b) above, functional descriptive material recorded in computer readable medium and structurally and functionally interrelate to the medium is statutory. Examiner agrees. However, applicant's invention is not limited to tangible embodiment, but also the intangible embodiment (see paragraph of the last Office action on). The internet can be a computer readable medium. The internet is intangible in examiner's position. The program product could be in the form of transmitted signals on internet medium readable by computer.

21. As to c) above, It was well know that a flowchart in computer is the symbolic representation of a program algorithm. When a decision is made under a condition (e.g. a diamond box Yes or No), the program execution flow will go to a target point. This target point is a target address of a branch instruction being executed based on the condition. Let's assume that the decision box is not being implemented by a branch instruction, what else could it be for branching to the target address ?

22. As to d) above, the type of "a branch instruction" is not being recited in the claim. Therefore, it is read as any instruction capable of branch to a target address.. Aggarwal's long word instruction (see WCS in fig.12, col.3, lines 61-63) is a branch instruction which has a state name [address field] to be evaluated to determine the availability of a resource (memory space) specified in the branch instruction [WCS] (see the condition of micro engine in col.4, lines 64-67, col.5, lines 1-9, see branch address in col.10, lines 12-31).

23. As to e), examiner agrees that Hasegawa's branching decisions are based on the value of Z,N,C and V flags of the condition code unit 61. However, based on Hasegawa's teaching in Table 1, these flags are implicitly encoded in the opcode bits (see each combination of the three bits for the respective flags in Table 1). For example, if the opcode is 100, it already has the meaning of not equal to the zero flag, Z. Therefore, Hasegawa teaches the state (0,1) of a state name (Z) specified by the branching instruction (encoded in opcode 100 based on Table 1) , where the state is indicative of the availability of a resource (the resource being the result whether is zero of not).

24. As to f) above, applicant is reminded that unclaimed features cannot be used to overcome the prior art (e.g. see CCPA In re Lundenberg & Zuschlag, 113, USPQ 530, 534 (1957)). For example, nowhere does applicant claim recite the resource is necessary a queue. Dyer's HRBIT is clearly a resource of the data processing apparatus (e.g. resource such as a bit signal used to determine a branch).

25. As to g), each of the Hasegawa's encoded opcodes was specified context.

Applicant's amendment (see new claims 21,22) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). Response to remaining clams 1-20 are also included in this action.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162.

The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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